## **EXHIBIT A**

## 1-MONTH AND 3-MONTH USD ICE LIBOR RATES February 2014-June 2019

## Source:

Federal Reserve Economic Data Economic Research Division Federal Reserve Bank of St. Louis\*

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2014-02-03	0.15710	0.23560
2014-02-04	0.15750	0.23645
2014-02-05	0.15750	0.23635
2014-02-06	0.15650	0.23685
2014-02-07	0.15550	0.23385
2014-02-10	0.15475	0.23385
2014-02-11	0.15425	0.23660
2014-02-12	0.15350	0.23610
2014-02-13	0.15450	0.23585
2014-02-14	0.15450	0.23585
2014-02-17	0.15350	0.23510
2014-02-18	0.15400	0.23455
2014-02-19	0.15450	0.23360
2014-02-20	0.15550	0.23560
2014-02-21	0.15550	0.23485
2014-02-24	0.15450	0.23435
2014-02-25	0.15450	0.23360
2014-02-26	0.15450	0.23330
2014-02-27	0.15450	0.23610
2014-02-28	0.15550	0.23565
2014-03-03	0.15530	0.23565
2014-03-04	0.15650	0.23535
2014-03-05	0.15560	0.23440
2014-03-06	0.15440	0.23510
2014-03-07	0.15650	0.23565
2014-03-10	0.15500	0.23435
2014-03-11	0.15580	0.23330
2014-03-12	0.15550	0.23410
2014-03-13	0.15500	0.23335

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2014-03-14	0.15645	0.23485
2014-03-17	0.15620	0.23445
2014-03-18	0.15675	0.23485
2014-03-19	0.15755	0.23385
2014-03-20	0.15450	0.23360
2014-03-21	0.15425	0.23285
2014-03-24	0.15425	0.23510
2014-03-25	0.15375	0.23435
2014-03-26	0.15300	0.23335
2014-03-27	0.15250	0.23360
2014-03-28	0.15175	0.23335
2014-03-31	0.15200	0.23060
2014-04-01	0.15100	0.22810
2014-04-02	0.15200	0.23010
2014-04-03	0.15250	0.23035
2014-04-04	0.15250	0.22960
2014-04-07	0.15200	0.22935
2014-04-08	0.15040	0.22730
2014-04-09	0.15090	0.22755
2014-04-10	0.15250	0.22705
2014-04-11	0.15220	0.22645
2014-04-14	0.15170	0.22865
2014-04-15	0.15140	0.22635
2014-04-16	0.15200	0.22785
2014-04-17	0.15220	0.22585
2014-04-22	0.15230	0.22860
2014-04-23	0.15230	0.22875
2014-04-24 2014-04-25	0.15180 0.15200	0.22785 0.22660
2014-04-23	0.15200	0.22485
2014-04-28	0.15030	0.22535
2014-04-29	0.15150	0.22335
2014-05-01	0.15050	0.22385
2014-05-02	0.15150	0.22285
2014-05-06	0.15050	0.22485
2014-05-07	0.15150	0.22395
2014-05-08	0.15025	0.22335
2014-05-09	0.15160	0.22410
2014-05-12	0.15110	0.22510
2014-05-13	0.15110	0.22385
2014-05-14	0.15110	0.22535
2014-05-15	0.15100	0.22585
2014-05-16	0.14925	0.22860
2014-05-19	0.14850	0.22695
2014-05-20	0.14775	0.22810

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2014-05-21	0.14850	0.22735
2014-05-22	0.15000	0.22715
2014-05-23	0.15050	0.22935
2014-05-27	0.15050	0.22985
2014-05-28	0.15000	0.22760
2014-05-29	0.15100	0.22735
2014-05-30	0.15100	0.22740
2014-06-02	0.15100	0.22715
2014-06-03	0.15090	0.22740
2014-06-04	0.15200	0.22950
2014-06-05	0.15100	0.23060
2014-06-06	0.15350	0.22960
2014-06-09	0.15225	0.23055
2014-06-10	0.15200	0.23030
2014-06-11	0.15125	0.22980
2014-06-12	0.15175	0.23060
2014-06-13	0.15425	0.23210
2014-06-16	0.15400	0.23060
2014-06-17	0.15500	0.23100
2014-06-18	0.15300	0.23100
2014-06-19	0.15325	0.22960
2014-06-20	0.15400	0.23060
2014-06-23	0.15200	0.23260
2014-06-24	0.15150	0.23360
2014-06-25	0.15100	0.23385
2014-06-26	0.14950	0.23410
2014-06-27	0.15150	0.23460
2014-06-30	0.15520	0.23070
2014-07-01	0.15520	0.23180
2014-07-02 2014-07-03	0.15550 0.15550	0.23460 0.23210
2014-07-03	0.15340	0.23210
2014-07-04	0.15340	0.23410
2014-07-08	0.15250	0.23360
2014-07-09	0.15275	0.23410
2014-07-10	0.15150	0.23360
2014-07-11	0.15200	0.23360
2014-07-14	0.15200	0.23260
2014-07-15	0.15420	0.23310
2014-07-16	0.15545	0.23360
2014-07-17	0.15620	0.23360
2014-07-18	0.15425	0.23160
2014-07-21	0.15475	0.23310
2014-07-22	0.15525	0.23260
2014-07-23	0.15500	0.23410

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2014-07-24	0.15425	0.23510
2014-07-25	0.15600	0.23410
2014-07-28	0.15500	0.23610
2014-07-29	0.15500	0.23710
2014-07-30	0.15580	0.23960
2014-07-31	0.15600	0.23910
2014-08-01	0.15600	0.23810
2014-08-04	0.15690	0.23710
2014-08-05	0.15850	0.23710
2014-08-06	0.15880	0.23420
2014-08-07	0.15700	0.23310
2014-08-08	0.15600	0.23510
2014-08-11	0.15550	0.23380
2014-08-12	0.15600	0.23310
2014-08-13	0.15500	0.23360
2014-08-14	0.15500	0.23110
2014-08-15	0.15550	0.23210
2014-08-18	0.15550	0.23210
2014-08-19	0.15550	0.23440
2014-08-20	0.15500	0.23490
2014-08-21	0.15500	0.23490
2014-08-22	0.15500	0.23840
2014-08-26	0.15600	0.23810
2014-08-27	0.15670	0.23460
2014-08-28	0.15450	0.23360
2014-08-29	0.15700	0.23360
2014-09-01	0.15650	0.23360
2014-09-02	0.15650	0.23310
2014-09-03	0.15610	0.23410
2014-09-04	0.15610	0.23310
2014-09-05	0.15280	0.23230
2014-09-08	0.15350	0.23360
2014-09-09	0.15350	0.23460
2014-09-10	0.15350	0.23460
2014-09-11	0.15360	0.23410
2014-09-12	0.15360	0.23460
2014-09-15	0.15360	0.23460
2014-09-16	0.15350	0.23440
2014-09-17	0.15300	0.23410
2014-09-18	0.15350	0.23310
2014-09-19	0.15400	0.23310
2014-09-22	0.15450	0.23560
2014-09-23	0.15450	0.23410
2014-09-24	0.15350	0.23510
2014-09-25	0.15150	0.23360

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2014-09-26	0.15400	0.23310
2014-09-29	0.15250	0.23510
2014-09-30	0.15650	0.23510
2014-10-01	0.15200	0.23260
2014-10-02	0.15200	0.23120
2014-10-03	0.15300	0.23160
2014-10-06	0.15300	0.23260
2014-10-07	0.15250	0.23110
2014-10-08	0.15180	0.22910
2014-10-09	0.15270	0.22910
2014-10-10	0.15280	0.23000
2014-10-13	0.15330	0.23060
2014-10-14	0.15180	0.22910
2014-10-15	0.15350	0.22810
2014-10-16	0.15700	0.23075
2014-10-17	0.15720	0.23135
2014-10-20	0.15570	0.23210
2014-10-21	0.15300	0.23060
2014-10-22	0.15300	0.23280
2014-10-23	0.15200	0.23360
2014-10-24	0.15200	0.23310
2014-10-27	0.15250	0.23260
2014-10-28	0.15350	0.23260
2014-10-29	0.15400	0.23260
2014-10-30	0.15670	0.23235
2014-10-31	0.15590	0.23210
2014-11-03	0.15550	0.23235
2014-11-04	0.15550	0.23185
2014-11-05	0.15550	0.23185
2014-11-06	0.15550	0.23160
2014-11-07	0.15730	0.23260
2014-11-10	0.15430	0.23310
2014-11-11	0.15330	0.23320
2014-11-12	0.15280	0.23320
2014-11-13	0.15470	0.23210
2014-11-14	0.15300	0.23210
2014-11-17	0.15400	0.23185
2014-11-18	0.15500	0.23185
2014-11-19	0.15500	0.23110
2014-11-20	0.15500	0.23290
2014-11-21	0.15525	0.23285
2014-11-24	0.15350	0.23435
2014-11-25	0.15625	0.23560
2014-11-26	0.15575	0.23560
2014-11-27	0.15500	0.23360

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2014-11-28	0.15400	0.23360
2014-12-01	0.15775	0.23460
2014-12-02	0.15825	0.23460
2014-12-03	0.15700	0.23485
2014-12-04	0.15720	0.23535
2014-12-05	0.15800	0.23560
2014-12-08	0.16170	0.23760
2014-12-09	0.15850	0.23885
2014-12-10	0.16080	0.23990
2014-12-11	0.16080	0.24060
2014-12-12	0.16100	0.24285
2014-12-15	0.16200	0.24260
2014-12-16	0.16200	0.24260
2014-12-17	0.16410	0.24535
2014-12-18	0.16545	0.24710
2014-12-19	0.16425	0.25210
2014-12-22	0.16700	0.25510
2014-12-23	0.16950	0.25460
2014-12-24	0.16875	0.25660
2014-12-29	0.16925	0.25510
2014-12-30	0.16950	0.25520
2014-12-31	0.17125	0.25560
2015-01-02	0.16750	0.25560
2015-01-05	0.16800	0.25360
2015-01-06	0.16775	0.25110
2015-01-07	0.16650	0.25210
2015-01-08	0.16625	0.25210
2015-01-09	0.16675	0.25410
2015-01-12	0.16650	0.25280
2015-01-13	0.16650	0.25330
2015-01-14	0.16825	0.25360
2015-01-15	0.16800	0.25260
2015-01-16	0.16800	0.25660
2015-01-19	0.16875	0.25620
2015-01-20	0.16850	0.25670
2015-01-21	0.16675	0.25710
2015-01-22	0.16825	0.25610
2015-01-23	0.16775	0.25610
2015-01-26	0.16900	0.25610
2015-01-27	0.16800	0.25260
2015-01-28	0.17050	0.25460
2015-01-29	0.17090	0.25460
2015-01-30	0.17125	0.25310
2015-02-02	0.16950	0.25210
2015-02-03	0.17100	0.25510

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2015-02-04	0.17350	0.25510
2015-02-05	0.17100	0.25610
2015-02-06	0.17150	0.25560
2015-02-09	0.17220	0.25835
2015-02-10	0.17170	0.25810
2015-02-11	0.17170	0.25810
2015-02-12	0.17200	0.25810
2015-02-13	0.17300	0.25710
2015-02-16	0.17300	0.25620
2015-02-17	0.17350	0.25670
2015-02-18	0.17350	0.26060
2015-02-19	0.17350	0.26150
2015-02-20	0.17150	0.26260
2015-02-23	0.17100	0.26160
2015-02-24	0.17150	0.26110
2015-02-25	0.17200	0.26090
2015-02-26	0.17190	0.26160
2015-02-27	0.17300	0.26185
2015-03-02	0.17270	0.26095
2015-03-03	0.17300	0.26515
2015-03-04	0.17500	0.26360
2015-03-05	0.17500	0.26360
2015-03-06	0.17500	0.26460
2015-03-09	0.17650	0.26660
2015-03-10	0.17790	0.26770
2015-03-11	0.17600	0.26990
2015-03-12	0.17450	0.27060
2015-03-13	0.17650	0.27065
2015-03-16	0.17700	0.27015
2015-03-17	0.17750	0.26935
2015-03-18	0.17600	0.27030
2015-03-19	0.17325	0.26455
2015-03-20	0.17400	0.26680
2015-03-23	0.17375	0.26680
2015-03-24	0.17275	0.26935
2015-03-25 2015-03-26	0.17560 0.17775	0.26855 0.27305
2015-03-20	0.17773	0.27540
2015-03-27	0.17800	0.27340
2015-03-30	0.17925	0.27413
2015-03-31	0.17023	0.27075
2015-04-01	0.17735	0.27375
2015-04-07	0.17975	0.27375
2015-04-08	0.18095	0.27120
2015-04-09	0.18000	0.27590
	2.1000	5.2,000

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2015-04-10	0.17850	0.27700
2015-04-13	0.18150	0.27530
2015-04-14	0.18250	0.27555
2015-04-15	0.18040	0.27435
2015-04-16	0.18055	0.27510
2015-04-17	0.18025	0.27575
2015-04-20	0.18050	0.27600
2015-04-21	0.18150	0.27725
2015-04-22	0.18175	0.27750
2015-04-23	0.18125	0.27700
2015-04-24	0.18150	0.27900
2015-04-27	0.18125	0.27900
2015-04-28	0.18425	0.27815
2015-04-29	0.18025	0.27815
2015-04-30	0.18100	0.27875
2015-05-01	0.18225	0.27975
2015-05-05	0.18050	0.27590
2015-05-06	0.18025	0.27600
2015-05-07	0.18150	0.27885
2015-05-08	0.18475	0.27985
2015-05-11	0.18560	0.27660
2015-05-12	0.18560	0.27500
2015-05-13	0.18560	0.27390
2015-05-14	0.18335	0.27600
2015-05-15	0.18620	0.27650
2015-05-18	0.18400	0.27600
2015-05-19	0.18675	0.28100
2015-05-20	0.18475	0.28350
2015-05-21	0.18475	0.28200
2015-05-22	0.18485	0.28450
2015-05-26	0.18630	0.28585
2015-05-27	0.18535	0.28350
2015-05-28	0.18400	0.28275
2015-05-29	0.18400	0.28375
2015-06-01	0.18300	0.28250
2015-06-02	0.18480	0.27870
2015-06-03	0.18500	0.27920
2015-06-04	0.18405	0.27890
2015-06-05	0.18300	0.28120
2015-06-08	0.18540	0.28220
2015-06-09	0.18750	0.28550
2015-06-10	0.18875	0.28785
2015-06-11	0.18550	0.28585
2015-06-12	0.18475	0.28605
2015-06-15	0.18525	0.28325

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2015-06-16	0.18500	0.28625
2015-06-17	0.18750	0.28570
2015-06-18	0.18675	0.28080
2015-06-19	0.18700	0.28130
2015-06-22	0.18700	0.28225
2015-06-23	0.18700	0.28075
2015-06-24	0.18650	0.28075
2015-06-25	0.18600	0.28200
2015-06-26	0.18660	0.28175
2015-06-29	0.18660	0.28370
2015-06-30	0.18650	0.28320
2015-07-01	0.18500	0.28360
2015-07-02	0.18815	0.28350
2015-07-03	0.18840	0.28430
2015-07-06	0.18650	0.28425
2015-07-07	0.18950	0.28325
2015-07-08	0.18850	0.28345
2015-07-09	0.18670	0.28600
2015-07-10	0.18600	0.28580
2015-07-13	0.18730	0.28880
2015-07-14	0.18700	0.28850
2015-07-15	0.18600	0.28850
2015-07-16	0.18800	0.28700
2015-07-17	0.19050	0.29175
2015-07-20	0.18900	0.29500
2015-07-21	0.18500	0.29410
2015-07-22	0.18700	0.29250
2015-07-23	0.19050	0.29510
2015-07-24	0.18900	0.29360
2015-07-27	0.18900	0.29410
2015-07-28	0.19080	0.29680
2015-07-29	0.18955	0.29680
2015-07-30	0.18850	0.30010
2015-07-31	0.19175	0.30860
2015-08-03	0.19050	0.30370
2015-08-04	0.19075	0.30110
2015-08-05	0.19350	0.31090
2015-08-06	0.19150	0.31140
2015-08-07	0.19125	0.31160
2015-08-10	0.19255	0.31420
2015-08-11	0.19345	0.31435
2015-08-12	0.19400	0.30930
2015-08-13	0.19760	0.32050
2015-08-14	0.19960	0.32445
2015-08-17	0.20460	0.33285

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2015-10-21	0.19480	0.31640
2015-10-22	0.19695	0.31990
2015-10-23	0.19350	0.32290
2015-10-26	0.19355	0.32315
2015-10-27	0.19075	0.32390
2015-10-28	0.18830	0.32190
2015-10-29	0.19300	0.32890
2015-10-30	0.19200	0.33410
2015-11-02	0.19000	0.33410
2015-11-03	0.19220	0.33360
2015-11-04	0.19320	0.33660
2015-11-05	0.19475	0.34390
2015-11-06	0.19450	0.34140
2015-11-09	0.19700	0.35560
2015-11-10	0.19550	0.35610
2015-11-11	0.19575	0.35910
2015-11-12	0.19700	0.36160
2015-11-13	0.19725	0.36360
2015-11-16	0.19925	0.36410
2015-11-17	0.20250	0.36710
2015-11-18	0.20675	0.36960
2015-11-19	0.21325	0.37760
2015-11-20	0.21150	0.38210
2015-11-23	0.22100	0.39320
2015-11-24	0.22500	0.40230
2015-11-25	0.23150	0.40670
2015-11-26	0.23275	0.41170
2015-11-27	0.24375	0.41420
2015-11-30	0.24300	0.41620
2015-12-01	0.24375	0.42220
2015-12-02	0.25100	0.43600
2015-12-03 2015-12-04	0.26860	0.45200
	0.27550	0.46200
2015-12-07	0.28700	0.47700
2015-12-08	0.29310	0.48650
2015-12-09 2015-12-10	0.30050 0.31700	0.49200
2015-12-10		0.50200 0.51200
	0.33050	
2015-12-14 2015-12-15	0.34450	0.51775 0.52575
	0.35050	
2015-12-16 2015-12-17	0.36000	0.53250
2015-12-17	0.40210 0.41300	0.56950 0.58550
2015-12-16	0.41300	0.59310
2015-12-22	0.41750	0.59435

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2015-12-23	0.42160	0.60310
2015-12-24	0.42190	0.60310
2015-12-29	0.42390	0.60670
2015-12-30	0.42750	0.61220
2015-12-31	0.42950	0.61270
2016-01-04	0.42250	0.61170
2016-01-05	0.42200	0.61710
2016-01-06	0.42350	0.62010
2016-01-07	0.42350	0.61685
2016-01-08	0.42380	0.62110
2016-01-11	0.42400	0.62210
2016-01-12	0.42450	0.62360
2016-01-13	0.42550	0.62200
2016-01-14	0.42550	0.62110
2016-01-15	0.42550	0.61960
2016-01-18	0.42600	0.62380
2016-01-19	0.42500	0.62430
2016-01-20	0.42530	0.62130
2016-01-21	0.42650	0.61860
2016-01-22	0.42550	0.61910
2016-01-25	0.43060	0.62130
2016-01-26	0.43060	0.62110
2016-01-27	0.42800	0.61810
2016-01-28	0.42620	0.61560
2016-01-29	0.42500	0.61260
2016-02-01	0.42700	0.61860
2016-02-02	0.42850	0.61920
2016-02-03	0.42850	0.62060 0.62020
2016-02-04	0.42770 0.42890	0.62020
2016-02-05 2016-02-08	0.42890	0.62100
2016-02-09	0.42923	0.62050
2016-02-09	0.42650	0.61760
2016-02-11	0.42700	0.61720
2016-02-12	0.43050	0.61820
2016-02-15	0.42925	0.61820
2016-02-16	0.42950	0.61820
2016-02-17	0.43005	0.61940
2016-02-18	0.43200	0.61820
2016-02-19	0.43350	0.61820
2016-02-22	0.43350	0.62460
2016-02-23	0.43580	0.62910
2016-02-24	0.43380	0.63460
2016-02-25	0.43850	0.63560
2016-02-26	0.43850	0.63510

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2016-02-29	0.44050	0.63310
2016-03-01	0.43525	0.63160
2016-03-02	0.43760	0.63485
2016-03-03	0.44050	0.63560
2016-03-04	0.43800	0.63350
2016-03-07	0.44050	0.63610
2016-03-08	0.44185	0.63515
2016-03-09	0.43800	0.63460
2016-03-10	0.43810	0.63235
2016-03-11	0.43620	0.63385
2016-03-14	0.44130	0.63955
2016-03-15	0.44125	0.64195
2016-03-16	0.43990	0.63900
2016-03-17	0.43210	0.62340
2016-03-18	0.42830	0.62430
2016-03-21	0.43180	0.62460
2016-03-22	0.43150	0.62835
2016-03-23	0.43300	0.63010
2016-03-24	0.43500	0.62860
2016-03-29	0.43290	0.63085
2016-03-30	0.43400	0.62510
2016-03-31	0.43725	0.62860
2016-04-01	0.43735	0.62910
2016-04-04	0.44020	0.63010
2016-04-05	0.43850	0.62660
2016-04-06	0.43900	0.63060
2016-04-07	0.43645	0.62880
2016-04-08	0.43470	0.63080
2016-04-11	0.43590	0.62985
2016-04-12	0.43715	0.62960
2016-04-13	0.43275	0.62835
2016-04-14	0.43625	0.63285
2016-04-15	0.43625	0.63310 0.63435
2016-04-18 2016-04-19	0.43875 0.44115	0.63485
2016-04-19	0.44115	0.63510
2016-04-20	0.44125	0.63810
2016-04-21	0.43645	0.63585
2016-04-25	0.43695	0.63385
2016-04-26	0.43770	0.63435
2016-04-27	0.43520	0.63835
2016-04-28	0.43880	0.63660
2016-04-29	0.43575	0.63660
2016-05-03	0.43590	0.63290
2016-05-04	0.43590	0.63410
2010-05-04	0.43590	0.63410

ICE LIBOR	3M USD ICE LIBOR
	0.63180
	0.62960
	0.62960
	0.62810
	0.62660
0.43445	0.62610
0.43395	0.62760
0.43620	0.62610
0.43870	0.62510
0.43845	0.63560
0.44300	0.65390
0.44325	0.66130
0.44600	0.66230
0.44420	0.66530
0.44970	0.66655
0.45445	0.67405
0.45665	0.67305
0.46885	0.68580
0.46955	0.68130
0.46305	0.68010
0.46480	0.68215
	0.66065
	0.65660
	0.65800
	0.65605
	0.65560
	0.65250
	0.65480
	0.65635
	0.64660
	0.64440
	0.64650
	0.64185 0.64010
	0.64010
	0.62360
	0.62710
	0.63110
	0.64610
	0.65410
	0.65335
	0.65635
	0.65710
	0.66110
0.47430	0.66460
	0.43395 0.43620 0.43870 0.43845 0.44300 0.44325 0.44600 0.44420 0.44970 0.45445 0.45665 0.46885 0.46955 0.46305 0.44705 0.44230 0.44705 0.44580 0.44705 0.44655 0.44230 0.44605 0.44230 0.44605 0.44230 0.44605 0.44805 0.44805 0.44805 0.44780 0.44605 0.44805 0.44780 0.44605 0.44805 0.44780 0.44605 0.44780 0.44605 0.44780 0.44605 0.44780 0.44605 0.44780 0.44605 0.44780 0.44780 0.44805 0.4505 0.4505 0.4505 0.46555 0.46505 0.46755 0.46955 0.47030 0.47255

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2016-07-08	0.47580	0.66710
2016-07-11	0.47785	0.66910
2016-07-12	0.47935	0.67335
2016-07-13	0.48135	0.68010
2016-07-14	0.48210	0.67910
2016-07-15	0.48330	0.68785
2016-07-18	0.48655	0.69560
2016-07-19	0.48530	0.69710
2016-07-20	0.48740	0.70160
2016-07-21	0.48790	0.71450
2016-07-22	0.49040	0.72100
2016-07-25	0.49090	0.73350
2016-07-26	0.49265	0.74300
2016-07-27	0.49565	0.75150
2016-07-28	0.49390	0.75650
2016-07-29	0.49590	0.75910
2016-08-01	0.49390	0.75910
2016-08-02	0.49390	0.76760
2016-08-03	0.49690	0.77760
2016-08-04	0.49840	0.78760
2016-08-05	0.50390	0.79235
2016-08-08	0.51190	0.80650
2016-08-09 2016-08-10	0.51315 0.51765	0.81600 0.81760
2016-08-11	0.51765	0.81700
2016-08-12	0.50665	0.81825
2016-08-15	0.50744	0.80411
2016-08-16	0.50744	0.80128
2016-08-17	0.51411	0.81128
2016-08-18	0.51244	0.81100
2016-08-19	0.52106	0.81711
2016-08-22	0.52217	0.82544
2016-08-23	0.52439	0.82544
2016-08-24	0.51994	0.82544
2016-08-25	0.52383	0.82933
2016-08-26	0.52439	0.83344
2016-08-30	0.52322	0.84211
2016-08-31	0.52489	0.83933
2016-09-01	0.52294	0.83567
2016-09-02	0.52572	0.83511
2016-09-05	0.51933	0.83344
2016-09-06	0.51656	0.84067
2016-09-07	0.51322	0.83356
2016-09-08	0.51822	0.84544
2016-09-09	0.52689	0.85222

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2016-09-12	0.52772	0.85578
2016-09-13	0.52428	0.85028
2016-09-14	0.52956	0.85389
2016-09-15	0.53094	0.85656
2016-09-16	0.53178	0.85711
2016-09-19	0.53617	0.86067
2016-09-20	0.54306	0.86589
2016-09-21	0.54633	0.86333
2016-09-22	0.52528	0.85672
2016-09-23	0.52222	0.85294
2016-09-26	0.52444	0.85294
2016-09-27	0.52667	0.85378
2016-09-28	0.52438	0.83769
2016-09-29	0.52722	0.84561
2016-09-30	0.53111	0.85367
2016-10-03	0.52833	0.85789
2016-10-04	0.52722	0.86433
2016-10-05	0.52567	0.86794
2016-10-06	0.52956	0.87156
2016-10-07	0.52900	0.87606
2016-10-10	0.52956	0.87389
2016-10-11	0.53067	0.87750
2016-10-12	0.53456	0.88111
2016-10-13	0.53456	0.88000
2016-10-14	0.53567	0.88167
2016-10-17	0.52789	0.87761
2016-10-18	0.52567	0.88122
2016-10-19	0.52456	0.88067
2016-10-20	0.52400	0.88178
2016-10-21	0.53400	0.88178
2016-10-24	0.53400	0.88372
2016-10-25	0.53589	0.88567
2016-10-26	0.53478	0.89039
2016-10-27	0.53433	0.88733
2016-10-28	0.53267	0.88594
2016-10-31	0.53378	0.88428
2016-11-01	0.53044	0.88094
2016-11-02	0.53200	0.87567
2016-11-03	0.53256	0.88094
2016-11-04	0.53533	0.88261
2016-11-07	0.53533	0.88678
2016-11-08	0.53700	0.88233
2016-11-09	0.53644	0.88650
2016-11-10	0.53817	0.90206
2016-11-11	0.53817	0.90567

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2016-11-14	0.54206	0.91122
2016-11-15	0.55011	0.90622
2016-11-16	0.55456	0.90872
2016-11-17	0.56178	0.91122
2016-11-18	0.56600	0.91622
2016-11-21	0.56778	0.91983
2016-11-22	0.58422	0.92483
2016-11-23	0.59200	0.93011
2016-11-24	0.60256	0.93706
2016-11-25	0.60589	0.93733
2016-11-28	0.60561	0.93511
2016-11-29	0.61672	0.93067
2016-11-30	0.62367	0.93417
2016-12-01	0.63450	0.94167
2016-12-02	0.64667	0.94639
2016-12-05	0.65194	0.94806
2016-12-06	0.64889	0.95083
2016-12-07	0.65417	0.95083
2016-12-08	0.66389	0.95306
2016-12-09	0.68000	0.95650
2016-12-12	0.69472	0.95872
2016-12-13	0.70389	0.96344
2016-12-14	0.70728	0.97039
2016-12-15	0.73622	0.99317
2016-12-16	0.73900	0.99733
2016-12-19	0.74400	0.99428
2016-12-20	0.74900	0.99622
2016-12-21	0.75500	0.99761
2016-12-22	0.75611	0.99706
2016-12-23	0.76111	0.99706
2016-12-28	0.77000	0.99817
2016-12-29	0.77111	0.99789
2016-12-30	0.77167	0.99789
2017-01-03	0.77333	0.99872
2017-01-04	0.76556	1.00511
2017-01-05	0.76556	1.00928
2017-01-06	0.76333	1.01011
2017-01-09	0.76333	1.01483
2017-01-10	0.76500	1.01789
2017-01-11	0.76722	1.02178
2017-01-12	0.76722	1.02178
2017-01-13	0.76833	1.02317
2017-01-16	0.76778	1.02372
2017-01-17	0.76944	1.02483
2017-01-18	0.77667	1.03011

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2017-01-19	0.77639	1.04122
2017-01-20	0.77528	1.04344
2017-01-23	0.77111	1.03789
2017-01-24	0.77333	1.03178
2017-01-25	0.77611	1.03733
2017-01-26	0.77611	1.03900
2017-01-27	0.77833	1.03900
2017-01-30	0.78000	1.03400
2017-01-31	0.77944	1.03456
2017-02-01	0.78000	1.03456
2017-02-02	0.77667	1.03372
2017-02-03	0.77556	1.03400
2017-02-06	0.77528	1.03844
2017-02-07	0.77278	1.03817
2017-02-08	0.77167	1.03372
2017-02-09	0.77056	1.03372
2017-02-10	0.77111	1.03622
2017-02-13	0.77000	1.03900
2017-02-14	0.77000	1.03733
2017-02-15	0.77222	1.04178
2017-02-16	0.78056	1.05650
2017-02-17	0.77944	1.05233
2017-02-20	0.77722	1.05011
2017-02-21	0.77944	1.05344
2017-02-22	0.77944	1.05400
2017-02-23	0.77833	1.05233
2017-02-24	0.78056	1.05400
2017-02-27	0.78444	1.05456
2017-02-28	0.78889	1.06400
2017-03-01	0.81056	1.09278
2017-03-02	0.83000	1.10000
2017-03-03	0.83444	1.10167
2017-03-06	0.84667	1.10622
2017-03-07	0.85444	1.10622
2017-03-08	0.85778	1.10900
2017-03-09	0.88139	1.11956
2017-03-10	0.89056	1.12122
2017-03-13	0.91222	1.13122
2017-03-14	0.92833	1.13733
2017-03-15	0.94278	1.14817
2017-03-16	0.97833	1.15178
2017-03-17	0.97611	1.15178
2017-03-20	0.97722	1.15622
2017-03-21	0.97722	1.15622
2017-03-22	0.98389	1.15678

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2017-03-23	0.98167	1.15289
2017-03-23	0.98107	1.15289
2017-03-24	0.98222	1.15128
2017-03-27	0.98222	1.15109
2017-03-28	0.98222	1.13222
2017-03-29	0.98278	1.14761
2017-03-30	0.98278	1.14761
2017-03-31	0.98333	1.14983
2017-04-04	0.98611	1.14983
2017-04-05	0.98556	1.15039
2017-04-06	0.98944	1.15539
2017-04-07	0.99000	1.15761
2017-04-10	0.98833	1.15567
2017-04-11	0.99000	1.15511
2017-04-12	0.99389	1.15844
2017-04-13	0.99444	1.15844
2017-04-18	0.99278	1.15622
2017-04-19	0.99111	1.15567
2017-04-20	0.98833	1.15317
2017-04-21	0.99056	1.15622
2017-04-24	0.99111	1.16650
2017-04-25	0.99222	1.17039
2017-04-26	0.99278	1.17178
2017-04-27	0.99500	1.16956
2017-04-28	0.99500	1.17233
2017-05-02	0.99278	1.17372
2017-05-03	0.99167	1.17122
2017-05-04	0.99278	1.17928
2017-05-05	0.99444	1.18039
2017-05-08	0.99411	1.18456
2017-05-09	0.98856	1.18200
2017-05-10	0.98856	1.18094
2017-05-11	0.98911	1.18178
2017-05-12	0.99244	1.17956
2017-05-15	1.00078	1.17944
2017-05-16	0.99911	1.18117
2017-05-17	1.00356	1.17839
2017-05-18	1.00994	1.17172
2017-05-19	1.01711	1.18644
2017-05-22	1.02939	1.19200
2017-05-23	1.02356	1.18867
2017-05-24	1.03272	1.19761
2017-05-25	1.04383	1.20039
2017-05-26	1.04467	1.20178
2017-05-30	1.05050	1.20178

2.475	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2017-05-31	1.06033	1.21000
2017-06-01 2017-06-02	1.07589 1.08617	1.21806 1.22250
2017-06-02	1.08422	1.21956
2017-06-05	1.08867	1.21900
2017-06-07	1.09600	1.22100
2017-06-08	1.11711	1.22811
2017-06-09	1.12711	1.23644
2017-06-12	1.13933	1.24167
2017-06-13	1.15889	1.24556
2017-06-14	1.17167	1.25033
2017-06-15	1.20944	1.26744
2017-06-16	1.21222	1.27356
2017-06-19	1.21389	1.28022
2017-06-20	1.21556	1.28722
2017-06-21	1.21556	1.28944
2017-06-22	1.21611	1.29556
2017-06-23	1.22000	1.29328
2017-06-26	1.22211	1.29483
2017-06-27	1.22378	1.29506
2017-06-28	1.22611	1.29639
2017-06-29	1.22722	1.29861
2017-06-30	1.22389	1.29917
2017-07-03	1.22689	1.30072
2017-07-04	1.22333	1.30211
2017-07-05	1.22333	1.30300
2017-07-06	1.22444	1.30411
2017-07-07	1.22633	1.30522
2017-07-10	1.22389	1.30411
2017-07-11	1.22389	1.30350
2017-07-12	1.22444	1.30389
2017-07-13	1.22556	1.30361
2017-07-14	1.22611	1.30361 1.30611
2017-07-17 2017-07-18	1.22833 1.22778	1.30611
2017-07-18	1.22889	1.30722
2017-07-19	1.22722	1.31250
2017-07-20	1.23222	1.31444
2017-07-21	1.23278	1.31389
2017-07-24	1.23278	1.31667
2017-07-26	1.23333	1.31389
2017-07-27	1.23389	1.31111
2017-07-28	1.23167	1.31056
2017-07-31	1.23167	1.31056
2017-08-01	1.23167	1.31056

DATE         ICE LIBOR         ICE LIBOR           2017-08-02         1.23056         1.31278           2017-08-03         1.23056         1.31167           2017-08-04         1.22889         1.31194           2017-08-07         1.22889         1.31139           2017-08-08         1.23056         1.30944           2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31639           2017-08-18         1.23500         1.31472           2017-08-18         1.23500         1.31474
2017-08-03         1.23056         1.31167           2017-08-04         1.22889         1.31194           2017-08-07         1.22889         1.31139           2017-08-08         1.23056         1.30944           2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31639           2017-08-18         1.23500         1.31472
2017-08-04         1.22889         1.31194           2017-08-07         1.22889         1.31139           2017-08-08         1.23056         1.30944           2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31639           2017-08-18         1.23500         1.31472
2017-08-07         1.22889         1.31139           2017-08-08         1.23056         1.30944           2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31667           2017-08-17         1.23056         1.31639           2017-08-18         1.23500         1.31472
2017-08-08         1.23056         1.30944           2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31667           2017-08-17         1.23056         1.31639           2017-08-18         1.23500         1.31472
2017-08-09         1.22889         1.30917           2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31667           2017-08-17         1.23056         1.31639           2017-08-18         1.23500         1.31472
2017-08-10         1.22889         1.30911           2017-08-11         1.22667         1.31500           2017-08-14         1.22778         1.31417           2017-08-15         1.22833         1.31417           2017-08-16         1.22833         1.31667           2017-08-17         1.23056         1.31639           2017-08-18         1.23500         1.31472
2017-08-11       1.22667       1.31500         2017-08-14       1.22778       1.31417         2017-08-15       1.22833       1.31417         2017-08-16       1.22833       1.31667         2017-08-17       1.23056       1.31639         2017-08-18       1.23500       1.31472
2017-08-14     1.22778     1.31417       2017-08-15     1.22833     1.31417       2017-08-16     1.22833     1.31667       2017-08-17     1.23056     1.31639       2017-08-18     1.23500     1.31472
2017-08-15     1.22833     1.31417       2017-08-16     1.22833     1.31667       2017-08-17     1.23056     1.31639       2017-08-18     1.23500     1.31472
2017-08-17     1.23056     1.31639       2017-08-18     1.23500     1.31472
2017-08-18 1.23500 1.31472
0047.00.04 4.00550 4.04444
2017-08-21 1.23556 1.31444
2017-08-22 1.23611 1.31722
2017-08-23 1.23444 1.31722
2017-08-24 1.23389 1.31722
2017-08-25 1.23556 1.31778
2017-08-29 1.23889 1.31694
2017-08-30 1.23722 1.31611
2017-08-31 1.23167 1.31778
2017-09-01 1.23056 1.31611
2017-09-04 1.23167 1.31611
2017-09-05 1.23111 1.31722
2017-09-06 1.23222 1.31722
2017-09-07 1.23500 1.31722
2017-09-08 1.23611 1.31033
2017-09-11 1.23611 1.31667
2017-09-12 1.23667 1.31917
2017-09-13 1.23444 1.32000
2017-09-14 1.23444 1.32111
2017-09-15     1.23722     1.32389       2017-09-18     1.23611     1.32500
2017-09-18   1.23611   1.32500     2017-09-19   1.23722   1.32611
2017-09-19 1.23722 1.32011
2017-09-21 1.23722 1.32833
2017-09-22 1.23833 1.32944
2017-09-25 1.23667 1.32972
2017-09-26 1.23444 1.33083
2017-09-27 1.23500 1.33278
2017-09-28 1.23500 1.33500
2017-09-29 1.23222 1.33389
2017-10-02 1.23333 1.33556
2017-10-03 1.23778 1.34250
2017-10-04 1.23778 1.34667

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2017-10-05	1.23778	1.34861
2017-10-06	1.23500	1.35028
2017-10-09	1.23722	1.35639
2017-10-10	1.23778	1.35667
2017-10-11	1.23889	1.35861
2017-10-12	1.23889	1.35917
2017-10-13	1.23667	1.35333
2017-10-16	1.23666	1.35389
2017-10-17	1.23777	1.35733
2017-10-18	1.23888	1.36261
2017-10-19	1.23888	1.36250
2017-10-20	1.23788	1.36476
2017-10-23	1.23788	1.36742
2017-10-24	1.23955 1.23999	1.37064
2017-10-25 2017-10-26	1.23999	1.37446 1.37796
2017-10-20	1.24100	1.38009
2017-10-27	1.24233	1.37678
2017-10-30	1.24333	1.38122
2017-10-31	1.24333	1.38483
2017-11-02	1.24212	1.39139
2017-11-03	1.24322	1.39194
2017-11-06	1.24424	1.39703
2017-11-07	1.24389	1.40258
2017-11-08	1.24606	1.40981
2017-11-09	1.24494	1.41289
2017-11-10	1.24606	1.41289
2017-11-13	1.25028	1.41586
2017-11-14	1.26350	1.41899
2017-11-15	1.26600	1.42190
2017-11-16	1.28267	1.43567
2017-11-17	1.28719	1.44067
2017-11-20	1.29418	1.44594
2017-11-21	1.31287	1.45400
2017-11-22	1.32750	1.46233
2017-11-23	1.32862	1.46206
2017-11-24	1.33756	1.46763
2017-11-27	1.34676	1.47725
2017-11-28	1.34978	1.47882
2017-11-29	1.36069	1.48063
2017-11-30	1.37188	1.48738
2017-12-01	1.37938	1.49463
2017-12-04	1.39181	1.50849
2017-12-05	1.40319	1.51532
2017-12-06	1.40688	1.52263

D.4.7.5	1M USD	3M USD
<b>DATE</b>	ICE LIBOR	ICE LIBOR
2017-12-07	1.43185	1.53606
2017-12-08 2017-12-11	1.44438 1.45951	1.54878 1.56347
2017-12-11	1.47195	1.57352
2017-12-12	1.47703	1.58849
2017-12-13	1.49078	1.60042
2017-12-14	1.49500	1.61331
2017-12-18	1.50113	1.62548
2017-12-19	1.51113	1.64203
2017-12-20	1.53488	1.65793
2017-12-21	1.55213	1.67464
2017-12-22	1.56375	1.68577
2017-12-27	1.56900	1.69339
2017-12-28	1.56775	1.69465
2017-12-29	1.56425	1.69428
2018-01-02	1.56175	1.69693
2018-01-03	1.55688	1.69593
2018-01-04	1.55500	1.70381
2018-01-05	1.55250	1.70393
2018-01-08	1.55375	1.70802
2018-01-09	1.55375	1.70457
2018-01-10	1.55375	1.70911
2018-01-11	1.55945	1.72019
2018-01-12	1.55947	1.72152
2018-01-15	1.55614	1.73133
2018-01-16	1.55613	1.73408
2018-01-17	1.55750	1.73918
2018-01-18	1.56118	1.74470
2018-01-19	1.56128	1.74447
2018-01-22	1.56014	1.74130
2018-01-23	1.56135	1.74520
2018-01-24 2018-01-25	1.56137 1.56693	1.75246 1.76031
2018-01-25	1.56777	1.76690
2018-01-20	1.57345	1.77225
2018-01-30	1.57470	1.77340
2018-01-31	1.57970	1.77777
2018-02-01	1.57946	1.78698
2018-02-02	1.57957	1.78902
2018-02-05	1.58007	1.79345
2018-02-06	1.57926	1.79070
2018-02-07	1.57932	1.79989
2018-02-08	1.58077	1.81050
2018-02-09	1.58320	1.82000
2010-02-09	1.30320	1.02000

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2018-02-13	1.58750	1.83875
2018-02-14	1.58813	1.85000
2018-02-15	1.59000	1.87250
2018-02-16	1.59375	1.88494
2018-02-19	1.59563	1.89213
2018-02-20	1.59563	1.90394
2018-02-21	1.60251	1.91975
2018-02-22	1.62070 1.63120	1.94363
2018-02-23 2018-02-26	1.64800	1.95625 1.98419
2018-02-20	1.66418	
2018-02-27	1.67007	2.00625 2.01719
2018-02-20	1.68620	2.01719
2018-03-01	1.69050	2.02437
2018-03-02	1.70170	2.02319
2018-03-06	1.71131	2.04728
2018-03-07	1.71794	2.05725
2018-03-08	1.73957	2.07140
2018-03-09	1.75032	2.08875
2018-03-12	1.76495	2.10688
2018-03-13	1.77660	2.12450
2018-03-14	1.78638	2.14500
2018-03-15	1.80820	2.17750
2018-03-16	1.82207	2.20175
2018-03-19	1.84067	2.22249
2018-03-20	1.85382	2.24814
2018-03-21	1.86125	2.27108
2018-03-22	1.87150	2.28557
2018-03-23	1.87500	2.29155
2018-03-26	1.87688	2.29496
2018-03-27	1.87688	2.30200
2018-03-28	1.88688	2.30800
2018-03-29	1.88313	2.31175
2018-04-03	1.87750	2.32084
2018-04-04	1.89063	2.32461
2018-04-05	1.89519	2.33063
2018-04-06	1.89713	2.33746
2018-04-09	1.89713	2.33730
2018-04-10	1.89438	2.33903
2018-04-11	1.89563	2.34163
2018-04-12	1.89688	2.34769
2018-04-13	1.89550	2.35281
2018-04-16	1.89426	2.35509
2018-04-17	1.89563	2.35539
2018-04-18	1.89707	2.35866

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2018-04-19	1.89826	2.36156
2018-04-20	1.89695	2.35923
2018-04-23	1.89711	2.35954
2018-04-24	1.89826	2.36167
2018-04-25	1.89988	2.36561
2018-04-26	1.90076	2.35878
2018-04-27	1.90701	2.35805
2018-04-30	1.90932	2.36294
2018-05-01	1.90875	2.35375
2018-05-02	1.91713	2.36294
2018-05-03	1.92270	2.36313
2018-05-04	1.92770	2.36906
2018-05-08	1.92851 1.92851	2.35250 2.35575
2018-05-09 2018-05-10	1.92831	2.35575
2018-05-10	1.91871	2.34250
2018-05-11	1.93375	2.33000
2018-05-14	1.93875	2.32063
2018-05-16	1.93500	2.32563
2018-05-17	1.94775	2.33125
2018-05-18	1.95275	2.32938
2018-05-21	1.96125	2.33000
2018-05-22	1.96538	2.33000
2018-05-23	1.95969	2.33000
2018-05-24	1.96827	2.31938
2018-05-25	1.97563	2.31813
2018-05-29	1.98031	2.30719
2018-05-30	1.98246	2.30031
2018-05-31	2.00070	2.32125
2018-06-01	2.00468	2.31781
2018-06-04	2.01297	2.31381
2018-06-05	2.02454	2.31919
2018-06-06	2.02961	2.32088
2018-06-07	2.04638	2.32713
2018-06-08	2.04617	2.32631
2018-06-11	2.04738	2.33263
2018-06-12	2.05725	2.33563
2018-06-13	2.07325	2.34063
2018-06-14	2.08506	2.33469
2018-06-15	2.08494	2.32594
2018-06-18	2.08375	2.32469
2018-06-19	2.08788	2.33025
2018-06-20	2.08363	2.33188
2018-06-21	2.09113	2.33506
2018-06-22	2.09775	2.33888

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2018-06-25	2.10288	2.33700
2018-06-26	2.10188	2.33563
2018-06-27	2.09350	2.33438
2018-06-28	2.09213	2.33738
2018-06-29	2.09025	2.33575
2018-07-02	2.09994	2.34250
2018-07-03	2.08588	2.33725
2018-07-04	2.08725	2.33731
2018-07-05	2.09713	2.33863
2018-07-06	2.08625	2.33144
2018-07-09	2.07750	2.33313
2018-07-10	2.06650	2.33744
2018-07-11	2.07425	2.33700
2018-07-12	2.07163	2.33919
2018-07-13	2.07325	2.33600
2018-07-16	2.07850	2.33263
2018-07-17	2.08175	2.34194
2018-07-18	2.08625	2.34750
2018-07-19	2.08100	2.34706
2018-07-20	2.06900	2.34156
2018-07-23	2.06363	2.33531
2018-07-24	2.07013	2.33488
2018-07-25	2.07688	2.33688
2018-07-26	2.07163	2.33888
2018-07-27	2.07675	2.34238
2018-07-30	2.08150	2.34313
2018-07-31	2.08138	2.34856
2018-08-01	2.08213	2.34825
2018-08-02	2.08019	2.34050
2018-08-03	2.07931	2.34300
2018-08-06	2.08256	2.34325
2018-08-07	2.07113	2.34144
2018-08-08	2.06344	2.34050
2018-08-09	2.06731	2.33800
2018-08-10	2.06675	2.31925
2018-08-13	2.06269	2.31375
2018-08-14	2.06350	2.31519
2018-08-15	2.06000	2.31175
2018-08-16	2.07738	2.32225
2018-08-17	2.06938	2.31188
2018-08-20	2.06700	2.30963
2018-08-21	2.06588	2.31025
2018-08-22	2.06600	2.31175
2018-08-23	2.06475	2.31138
2018-08-24	2.07275	2.31725

	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2018-08-28	2.07488	2.31475
2018-08-29	2.07588	2.31263
2018-08-30	2.10375	2.32125
2018-08-31	2.11375	2.32075
2018-09-03	2.10950	2.31563
2018-09-04	2.12031	2.32275
2018-09-05	2.12050	2.31681
2018-09-06	2.13256	2.32706
2018-09-07	2.13100	2.33125
2018-09-10	2.13894	2.33425
2018-09-11	2.14794	2.33425
2018-09-12	2.13444	2.33150
2018-09-13	2.15844	2.33413
2018-09-14	2.16469	2.33713
2018-09-17	2.16813	2.33875
2018-09-18	2.16525	2.33750
2018-09-19	2.18244	2.35338
2018-09-20	2.21219	2.36638
2018-09-21	2.21581	2.37263
2018-09-24	2.21819	2.37363
2018-09-25	2.23006	2.38100
2018-09-26	2.24219	2.38613
2018-09-27	2.25600	2.39600
2018-09-28	2.26056	2.39838
2018-10-01	2.26513	2.39813
2018-10-02	2.27394	2.40750
2018-10-03	2.27925	2.40825
2018-10-04	2.28063	2.40963
2018-10-05	2.27669	2.40806
2018-10-08	2.28406	2.41425
2018-10-09	2.28713	2.42044
2018-10-10	2.28319	2.42519
2018-10-11	2.27950	2.43631
2018-10-12	2.27975	2.43644
2018-10-15	2.28950	2.44881
2018-10-16	2.28713	2.44456
2018-10-17	2.28200	2.44963
2018-10-18	2.27963	2.46900
2018-10-19	2.28188	2.47719
2018-10-22	2.28650	2.48738
2018-10-23	2.28138	2.48988
2018-10-24	2.29406	2.50800
2018-10-25	2.29494	2.50925
2018-10-26	2.29669	2.52038
2018-10-29	2.30200	2.52663

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2018-10-30	2.29938	2.54100
2018-10-31	2.30688	2.55850
2018-11-01	2.31356	2.58150
2018-11-02	2.31788	2.59238
2018-11-05	2.31600	2.58925
2018-11-06	2.31688	2.59125
2018-11-07	2.31531	2.60113
2018-11-08	2.31844	2.61463
2018-11-09	2.31438	2.61813
2018-11-12	2.30663	2.61413
2018-11-13	2.30650	2.61613
2018-11-14	2.31038	2.62900
2018-11-15	2.30250	2.64000
2018-11-16	2.30088	2.64450
2018-11-19	2.30025	2.64581
2018-11-20	2.30550	2.65313
2018-11-21	2.31513	2.67694
2018-11-22	2.31488	2.68925
2018-11-23	2.32188	2.69119
2018-11-26	2.33675	2.70681
2018-11-27	2.34931	2.70600
2018-11-28	2.34463	2.70663
2018-11-29	2.34925	2.73813
2018-11-30	2.34694	2.73613
2018-12-03	2.37888	2.75125
2018-12-04	2.37950	2.73888
2018-12-05	2.38325	2.76575
2018-12-06	2.38694	2.76713
2018-12-07	2.40019	2.77106
2018-12-10	2.42050 2.43238	2.77594
2018-12-11 2018-12-12		2.77900
2018-12-13	2.44013 2.45513	2.77750 2.78819
2018-12-13	2.45500	2.80069
2018-12-17	2.46963	2.80363
2018-12-18	2.47013	2.79200
2018-12-19	2.47938	2.78963
2018-12-19	2.50375	2.82375
2018-12-21	2.50625	2.82163
2018-12-24	2.50563	2.81344
2018-12-27	2.52238	2.80300
2018-12-28	2.51988	2.79700
2018-12-31	2.50269	2.80763
2019-01-02	2.50713	2.79388
2019-01-03	2.51275	2.79500
		5000

	1M USD	3M USD
<b>DATE</b>	ICE LIBOR	ICE LIBOR
2019-01-04	2.52056	2.80388
2019-01-07 2019-01-08	2.51113 2.51550	2.79681 2.78250
2019-01-08	2.51875	2.79888
2019-01-09	2.51419	2.79694
2019-01-11	2.50894	2.78731
2019-01-14	2.51006	2.77894
2019-01-15	2.50750	2.77344
2019-01-16	2.51325	2.78031
2019-01-17	2.50300	2.77575
2019-01-18	2.50600	2.76100
2019-01-21	2.51225	2.77238
2019-01-22	2.51900	2.77925
2019-01-23	2.51000	2.77063
2019-01-24	2.50188	2.76475
2019-01-25	2.50000	2.75163
2019-01-28	2.50175	2.75050
2019-01-29	2.49888	2.74438
2019-01-30	2.50913	2.73625
2019-01-31	2.51375	2.73750
2019-02-01	2.51400	2.73263
2019-02-04	2.51313	2.73438
2019-02-05	2.51225	2.73850
2019-02-06	2.51263	2.73763
2019-02-07	2.51688	2.69700
2019-02-08	2.50413	2.69775
2019-02-11	2.49788	2.68800
2019-02-12	2.49375	2.69288
2019-02-13	2.48875	2.68375
2019-02-14	2.48138 2.48038	2.69388 2.68288
2019-02-15 2019-02-18	2.48475	2.64363
2019-02-18	2.48225	2.64125
2019-02-19	2.48113	2.66338
2019-02-21	2.48988	2.65100
2019-02-22	2.48438	2.64625
2019-02-25	2.47913	2.63863
2019-02-26	2.49300	2.62888
2019-02-27	2.48925	2.62613
2019-02-28	2.49038	2.61513
2019-03-01	2.48188	2.59850
2019-03-04	2.48300	2.60763
2019-03-05	2.48088	2.60663
2019-03-06	2.49175	2.59450
2019-03-07	2.49275	2.60063

D.4.7.5	1M USD	3M USD
DATE	ICE LIBOR	ICE LIBOR
2019-03-08	2.49150	2.59663
2019-03-11 2019-03-12	2.49888 2.48863	2.60825 2.59325
2019-03-12	2.48375	2.59325
2019-03-13	2.48175	2.61463
2019-03-14	2.48175	2.62525
2019-03-18	2.48775	2.63263
2019-03-19	2.48675	2.61275
2019-03-20	2.49063	2.60700
2019-03-21	2.48550	2.60150
2019-03-22	2.49888	2.60988
2019-03-25	2.48975	2.60875
2019-03-26	2.49550	2.59738
2019-03-27	2.49863	2.60100
2019-03-28	2.50150	2.59175
2019-03-29	2.49450	2.59975
2019-04-01	2.49338	2.59550
2019-04-02	2.47938	2.60238
2019-04-03	2.47713	2.59775
2019-04-04	2.47350	2.58863
2019-04-05	2.47163	2.59213
2019-04-08	2.48125	2.58400
2019-04-09	2.48400	2.58125
2019-04-10	2.48200	2.60350
2019-04-11	2.47263	2.59675
2019-04-12	2.47738	2.60100
2019-04-15	2.47388	2.58800
2019-04-16	2.47975	2.60088
2019-04-17	2.48738	2.59150
2019-04-18	2.48088	2.58113
2019-04-23	2.47663	2.58025
2019-04-24	2.48338	2.58638
2019-04-25	2.47850 2.48313	2.58238
2019-04-26 2019-04-29	2.48588	2.58275
2019-04-29	2.48050	2.57900 2.57563
2019-04-30	2.48325	2.57550
2019-05-01	2.46713	2.56513
2019-05-02	2.46713	2.55988
2019-05-07	2.46275	2.56200
2019-05-08	2.45138	2.54513
2019-05-09	2.45338	2.53525
2019-05-10	2.44900	2.52788
2019-05-13	2.43963	2.51800
2019-05-14	2.43763	2.52450

DATE	1M USD ICE LIBOR	3M USD ICE LIBOR
2019-05-15	2.43238	2.52513
2019-05-16	2.44063	2.51963
2019-05-17	2.44188	2.52188
2019-05-20	2.43600	2.52338
2019-05-21	2.42963	2.52350
2019-05-22	2.43700	2.52475
2019-05-23	2.42975	2.52063
2019-05-24	2.42813	2.52488
2019-05-28	2.42938	2.52375
2019-05-29	2.43850	2.52175
2019-05-30	2.44000	2.52025
2019-05-31	2.43050	2.50250
2019-06-03	2.42988	2.47850
2019-06-04	2.42088	2.47438
2019-06-05	2.41850	2.47163
2019-06-06	2.41163	2.45300
2019-06-07	2.41213	2.45063
2019-06-10	2.41338	2.43575
2019-06-11	2.41063	2.44950
2019-06-12	2.40113	2.42788
2019-06-13	2.39425	2.41025
2019-06-14	2.38175	2.40200
2019-06-17	2.39025	2.41850
2019-06-18	2.38288	2.38663
2019-06-19	2.38338	2.38613
2019-06-20	2.40363	2.34313
2019-06-21	2.40438	2.34925
2019-06-24	2.40175	2.33288

<sup>\*</sup>According the website of the Federal Reserve Bank of St. Louis, this data series is lagged by one week due to an agreement with ICE Benchmark Administration. *See* ICE Benchmark Administration Limited (IBA), 1-Month London Interbank Offered Rate (LIBOR), based on U.S. Dollar [USD1MTD156N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/USD1MTD156N, July 1, 2019; ICE Benchmark Administration Limited (IBA), 3-Month London Interbank Offered Rate (LIBOR), based on U.S. Dollar [USD3MTD156N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/USD3MTD156N, July 1, 2019.